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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,245	09/28/2000	Masahiro Ishiyama	197808US2RD	7469
22850	7590	01/25/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			STRANGE, AARON N	
			ART UNIT	PAPER NUMBER
			2153	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/671,245	ISHIYAMA, MASAHIRO	
	Examiner	Art Unit	
	Aaron Strange	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Based on the amendments to the independent claims, and the interview conducted on 10/13/2005, it appears that Applicant intends to amend the present claims to indicate that a second server, despite responding to an inquiry slower than a first server, is selected by virtue of having a priority than the first server. However, in the interest of expedited prosecution, the Examiner would like to point out that the current limitations of the claims do not clearly show this.

The current claims merely state that the response from the second server is received by the response receiving means "after receiving the first domain name inquiry response" (Claim 1, Line 22). A system which always selected the fastest server could still meet this limitation since the claims do not specify that the requests are sent at the same start time, so a second response received after a first response could be received faster if its corresponding request was sent after the request for the first response.

The Examiner recommends amending the current claims to specify that the first and second requests were sent at the same time or a similar amendment that clearly shows that the second response is from a computer that was not the fastest to respond.

Response to Arguments

2. Applicant's arguments filed 10/24/2005 have been fully considered but they are not persuasive.

3. With regard to claims 1-7, and Applicant's assertion that the specification Provides support for "selecting a domain name server...based at least on the IP address included in the server information and the start time of the domain name inquiry request", the Examiner respectfully disagrees. Applicant again cites page 38, lines 18-24 of the specification, in addition to page 15, lines 8-12 and page 14, lines 18-24. Applicant asserts that "a selection made between servers DA1 and DE1 is at least to some extent based on the IP address of the servers" (Page 16, Line 24 to Page 16, Line 2 of Remarks). The cited sections do not appear to describe selection of a server "based on" any IP address. At best, the specification may describe using the IP address to select a table entry containing additional information about the server. However, the server itself is not chosen "based on" the IP address. If Applicant is referring to the operation of selecting a table entry as being "based on" the IP address, the Examiner recommends amending the claims to clearly show this.

4. With regard to claim 1, and Applicant's assertion that "Logan and Elz do not teach or suggest a name system server inquiry selection method that selects a server based on a priority of the domain name system server" (Page 17, Lines 12-14 of Remarks), the Examiner respectfully disagrees. Logan discloses selecting servers based on a priority of the server and discloses multiple methods of prioritizing servers. For example, Logan discloses selecting the site that "imposes minimum delays" (Col 5, Lines 55-57), the site that is least costly (Col 5, Lines 57-59), the site that is geographically closest to a user (Col 9, Line 60 to Col 10, Line 15).

With regard to Applicant's assertion that Logan and Elz "fail to teach or suggest 'request responding means for selecting the second domain name system server based on at least a priority of the second domain name server being higher than a priority of the first domain name system server'", the Examiner respectfully disagrees. As discussed above, Logan discloses several methods of prioritizing servers which may result in the slower server being chosen, such as cost or geographic location.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al. (US 6,578,066) in view of Elz et al. ("RFC 2182").

7. In regards to claim 1, Logan discloses a domain name system inquiry apparatus comprising:

current location information receiving means for receiving location information of the apparatus itself on a connected network (by resolving the request, the receiving means determines the location of a client on the network, col 10 lines 52-57);

current location management means for storing location information received by said current location information receiving means (this information is temporarily stored for checking the information versus a table of server locations);

server information receiving means for receiving server information regarding plural redundant servers to which an inquiry can be made, said server information including an IP address (The switch examines the hand-off table for determining a server to hand off to, col 10 lines 58-62, the table including IP addresses);

server management means for storing the server information received by said server information receiving means (a hand off table is stored for all the servers, col 10 lines 58-62 discusses the use of the table);

request receiving means for receiving a first inquiry request to a first redundant server and a second inquiry request to a second redundant server from a client (a request is received from a client, col 10 lines 52- 57) and for storing the start time of each inquiry request (Col 6, Lines 21-35);

request transferring means for transferring the inquiry request received by said request receiving means to at the first and second servers based on at least one of said location information and said server information (the switch determines a server to hand off the request to, transferring the inquiry, col 10, lines 58-62);

response receiving means for receiving a first response to the first inquiry request from the first redundant server and a second inquiry response to the second inquiry response from the second redundant server after receiving the first inquiry

Art Unit: 2153

response (numerous responses can be received and forwarded by the switch, col 10 line 62-65); and

request responding means for selecting the second server based at least on a priority of the second redundant server being higher than a priority of the first redundant server (least costly server; Col 5, Lines 57-59)(closest server; Col 9, Line 60 to Col 10, Line 15), the IP address included in the server information and the start time of the domain name inquiry request (Col 6, Lines 21-35) and for sending the selected response result to said client (an ordered list is sent to the client, with the best server being given priority, col 10 lines 58-65).

Logan fails to specifically disclose that the redundant servers are DNS servers. However, redundant DNS servers are well known in the art, as evidenced by Elz.

Elz teaches the use of multiple DNS servers to allow clients around the world to reliably reach a DNS server in the event that one is unavailable, as well as reduce the load on the primary DNS server for the zone. Using DNS servers in the system disclosed by Logan would be extremely advantageous since it would allow clients to locate the best DNS server from the group of redundant servers to sent their resolution requests. Since name resolution requests must be completed before content may be retrieved, using the fastest, closest, and/or cheapest DNS server for each client could greatly reduce the overall latency and/or cost experienced by that client.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the system disclosed by Logan to select the best DNS server for each client so that the latency/cost of content requests would be

reduced and the load on the DNS servers would be balanced among the redundant secondary DNS servers.

8. In regards to claim 2, Logan further discloses:

algorithm receiving means for receiving an algorithm for selecting said response result (a health check is done, which is an algorithmic examination of the network and the servers, col 5 line 60 - col 6 line 41);

algorithm management means for storing the algorithm received by said algorithm receiving means (the algorithm is stored by the checking system, tables I-IV show the details of the algorithms);

algorithm processing means for selecting the second response result in said request responding means by using the algorithm stored in said algorithm management means (the results of the algorithmic expression are searched and the most appropriate response is found and forwarded to the client, col 10 lines 37-65).

9. Claims 3,5, and 6 are rejected for the reasons cited above with regard to claim 1, since they recite substantially identical subject matter.

10. Claims 4 and 7 are rejected for the reasons cited above with regard to claim 2, since they recite substantially identical subject matter.

11. Claims 8-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al. (US 6,578,066) in view of Elz et al. ("RFC 2182").

12. In regards to claim 8, Logan discloses a domain name system inquiry apparatus comprising:

current location information receiving means for receiving location information of the apparatus itself on a connected network (by resolving the request, the receiving means determines the location of a client on the network, col 10 lines 52-57);

current location management means for storing location information received by said current location information receiving means (this information is temporarily stored for checking the information versus a table of server locations);

server information receiving means for receiving server information regarding plural redundant servers to which an inquiry can be made, said server information including a failure counter (The switch examines the hand-off table for determining a server to hand off to, col 10 lines 58-62, the table using an algorithm to calculate server information including a server health test, which measures various times associated with the server, including throughput times and calculates levels considered to be potential failures, col 5 line 60 - col 6 line 41 discusses the health tests);

server management means for storing the server information received by said server information receiving means (a hand off table is stored for all the servers, col 10 lines 58-62 discusses the use of the table);

request receiving means for receiving a first inquiry request to a first redundant server and a second inquiry request to a second redundant server from a client (a request is received from a client, col 10 lines 52- 57) and for storing the start time of each inquiry request (Col 6, Lines 21-35);

request transferring means for transferring the inquiry request received by said request receiving means to at the first and second servers based on at least one of said location information and said server information (the switch determines a server to hand off the request to, transferring the inquiry, col 10, lines 58-62);

response receiving means for receiving a first response to the first inquiry request from the first redundant server and a second inquiry response to the second inquiry response from the second redundant server after receiving the first inquiry response (numerous responses can be received and forwarded by the switch, col 10 line 62-65); and

request responding means for selecting the second server based at least on a priority of the second redundant server being higher than a priority of the first redundant server (least costly server; Col 5, Lines 57-59)(closest server; Col 9, Line 60 to Col 10, Line 15), the failure counter included in the server information and the start time of the inquiry request (Col 6, Lines 21-35) and for sending the selected response result to said client (an ordered list is sent to the client, with the best server being given priority, col 10 lines 58-65).

Logan fails to specifically disclose that the redundant servers are DNS servers. However, redundant DNS servers are well known in the art, as evidenced by Elz.

Elz teaches the use of multiple DNS servers to allow clients around the world to reliably reach a DNS server in the event that one is unavailable, as well as reduce the load on the primary DNS server for the zone. Using DNS servers in the system disclosed by Logan would be extremely advantageous since it would allow clients to locate the best DNS server from the group of redundant servers to sent their resolution requests. Since name resolution requests must be completed before content may be retrieved, using the fastest DNS server for each client could greatly reduce the overall latency experienced by that client.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the system disclosed by Logan to select the fastest DNS server for each client so that the latency of content requests would be reduced and the load on the DNS servers would be balances among the redundant secondary DNS servers.

13. In regards to claim 9, Logan discloses a domain name system inquiry apparatus, further comprising:

algorithm receiving means for receiving an algorithm for selecting said second one response result (a health check is done, which is an algorithmic examination of the network and the servers, col 5 line 60 - col 6 line 41);

algorithm management means for storing the algorithm received by said algorithm receiving means (the algorithm is stored by the checking system, tables I-IV show the details of the algorithms);

algorithm processing means for selecting said particular one response result in said request responding means by using the algorithm stored in said algorithm management means (the results of the algorithmic expression are searched and the most appropriate response is found and forwarded to the client, col 10 lines 37-65).

14. Claims 10, 12, and 13 are rejected for the reasons cited above with regard to claim 8, since they recite substantially identical subject matter.

15. Claims 11 and 14 are rejected for the reasons cited above with regard to claim 9, since they recite substantially identical subject matter.


Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS
1/19/06



KRISNA LIM
PRIMARY EXAMINER